

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Steven M. Bloom et al. Art Unit : 3624
Serial No. : 10/077,182 Examiner : Sara M. Chandler
Filed : February 15, 2002 Conf. No. : 9522
Title : BALANCING ARBITRAGABLE TRACKING SECURITIES

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REPLY BRIEF

Pursuant to 37 C.F.R. § 41.41, Applicant responds to the Examiner's Answer as follows

35 U.S.C. 101

The examiner had rejected Claims 1-26 under 35 U.S.C. 101 as directed to non-statutory subject matter. The examiner applied the so called "useful, concrete, and tangible result" test. Such a test was rejected by the Federal Circuit in *In re Bilski*. Appellant had argued the claims met that test as well as the "machine/transformation" test reaffirmed by the Federal Circuit in *Bilski*. The examiner withdrew the rejection.¹

However, the examiner seeks to interject non-statutory subject matter reasoning in rejecting the claims over the prior art as well as 112, ¶2.

Claims 1, 7, 12, 16 and 19 are Complete and Not Conclusory

The examiner takes issue with Appellant's argument regarding the completeness of these claims. The examiner relies on *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993) stating: "Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims."²

The examiner reliance is misplaced. *Van Geuns* dealt with a rejection under 35 U.S.C. 103, not 112, second paragraph, to which the examiner's arguments pertain. In *Van Geuns* a

¹ Answer page 3.

² *Id.*, page 20.

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party involved in an interference attempted to read into the claim the feature of a uniform magnetic field in order to avoid the prior art. Appellant has consistently argued that one skilled in the art would understand the metes and bounds of these claims, without reading any limitations from the specification into the claims. Appellant has consistently argued that one skilled in the art would understand the metes and bounds of these claims, without reading any limitations from the specification into the claims. The specification is available to clarify, if needed, terms used in the claims, but has not been relied on to read in claim limitations, whether for 35 U.S.C. 103 or 112, second paragraph, purposes. *Van Geuns* does not address claim completeness under 112, second paragraph. Therefore, *Van Geuns* is not applicable.

Regarding, the examiner's reasoning concerning essential subject matter,³ the examiner misunderstands "essential subject matter" and has mischaracterized Appellant's argument. Essential subject matter is the subject matter needed to distinguish over the cited art.⁴ Appellant's claims accomplish that, as will be discussed *infra*.

In order to advance this reasoning, the examiner argues that the term "producing the shares in the product," which is found in the preamble of claim 1 is not accomplished by the claim. Appellant disagrees.

The feature of "producing the shares in the product" is accomplished using the recited features of claim 1. Claim 1 requires recording by the computer, exchange of a creation unit basket of securities for a first fund for a prescribed number of shares in the first fund, and recording by the computer delivery of a number of shares in the second fund or in other securities to account for a cash amount owed. Those steps, as expressed in the claims, are the novel and non-obvious features involved in producing the shares in the product. Moreover, the claim does not preclude other features because the claim is open-ended.

Nor does claim 1 merely recite "... just recording ... nonfunctional descriptive material."⁵, as argued by the examiner. The steps of "recording by the computer, exchange ... of a creation unit basket of securities for a first fund for a prescribed number of shares in the first fund, ... ; and recording by the computer, delivery ... shares in the second fund or in other securities to account

³ Answer, page 20.

⁴ See *In re Geoffe*, 526 F.2d 1393, 1397, 188 U.S.P.Q. 131, (CCPA, 1975). It is not the role of the claims to enable one skilled in the art to reproduce the invention, but rather to define the legal metes and bounds of the invention.

⁵ Answer, page 21.

for a cash amount owed between the agent and the market participant ...” are the necessary combination of features that distinguish over the art and are executed in the method for producing this particular financial product.

Similarly, Claim 7 requires instructions to: "determine a number of shares in the second fund or in other securities to account for a cash amount owed ...” Claim 7 recites a calculation performed by the computer program instructions.

The examiner further argues for a requirement of a transaction.⁶ Appellant's claim 1 has a transaction – the conjunction of the features of claim 1 (or claim 7 for instance). Performing those steps or executing those instructions results in a transaction. While in some instances it could be that a transaction will not have a requirement for a cash amount that is owed, the steps still record that fact and the instructions still determine that no cash is owed.

Claims 12, 16 and 19 are complete for similar reasons.

Claims 2, 8, 13, 17 and 20

Claims 2, 8, 13, 17 and 20 do not require for novelty or antecedent basis “... the step of calculating the net asset value of the first fund at the close of trading in the second country in which the second fund is trading having previously occurred in the process.”⁷ Claim 2, recites the novel step of “calculating by the computer system the amount of cash needed to be exchanged ...” As part of this calculation, one of the inputs is “the net asset value of the first fund, calculated at the close of trading in the second country.”

However, the net asset calculation can be performed by various machines, which need not be specifically connected with any actions performed by claims 1 or 2. Thus, to require Appellant to recite the actual calculation of the net asset value, rather than use the net asset value as an input, improperly limits the claim without any prior art requiring narrowing of claim scope. Such a requirement would make it easy for infringer to easily avoid literal, direct infringement of the claim, because the machine that performs the calculation of cash, need not be the machine that determines the net asset value.

⁶ Answer, page 21.

⁷ Id.

The examiner argues that: "Thus, dependent claims bear no relationship to the steps performed in the independent claim."⁸ Among other bases, there are two bases by which the products of claims 1 and 2 distinguish over the art, the creation unit basis of each product and the timing of the net asset value calculation. One of those features is covered in claim 1 the other in claim 2. Claim 2 further limits claim 1, as do the other dependent claims and thus the dependent claims bear a proper relationship to the independent claim.

Preamble of the claims

The examiner argues: "In response to applicant's arguments, the recitation has not been given patentable weight because the recitation occurs in the preamble; and as noted *supra* the body of the claim never performs the act of "producing shares in a financial product."⁹ While, Appellant has not relied on the preamble for patentable weight, the preamble is part of the claim, and the examiner's reasoning is faulty because, as discussed *supra*, the feature is accomplished by the recited steps.

"Substantially" is a definite term

Appellant has amply supported the term "substantially." The term is definite and the specification provides a standard for measuring "substantially" based on the degree of arbitrage that the person of skill desired. The examiner also argues that: "As suggested by the applicant the degree of 'substantially' could be arbitrarily changed depending upon the desires of a given user."¹⁰ Appellant does not see how this detracts from the preciseness of the claim. Instead, this is a question of breath and is required to prevent a trivial modification to the creation unit of the first fund to again avoid infringement of the claims. The question is not whether a given user could arbitrarily change the composition of the second fund, but whether that given user would understand the metes and bounds of the subject matter of the claim.

One skilled in the art could depart from identical creation unit bases. That person would appreciate the concomitant effect on the exactness of arbitrage between the two funds. It is also clear to one skill in the art would understand what the metes and bounds of that departure could be. Indeed, the market itself could dictate the extend of the departure, for if the departure was so

⁸ Answer, page 21.

⁹ Answer, page 22.

¹⁰ Id.

great, the arbitrage would be ineffective. Therefore, the market itself would place restrictions on the degree of departure, in addition to the guidance offered by Appellant.

Other securities" and "value" are definite terms

The examiner contends that certain phrases such as "other securities" and "value" are not understood by one skilled in the art. The examiner reasons that:

Based on applicant's appeal brief, it would be understood that the meaning of the phrase "other securities" would include any security that was not shares in either the first fund or the second fund. The claimed invention recites "shares in the second fund or in other securities" which is written in the alternative form suggesting that the phrase "other securities" would include any security that was not shares in the second fund for example.

Thus, there are at least two interpretations regarding the meaning and scope of "other securities" making the use of the term in the claims unclear and indefinite.¹¹

Appellant contends that this circular reasoning is not helpful. There is nothing indefinite by the expression "or" as used in the claim. Simply stated, in claim 1 the computer records the delivery of either a shares in the second fund or other securities to account for the cash amount that is owed. Thus, in lieu of the exchange of cash either the second fund securities or other securities are delivered.

The examiner argues that: "What is meant by "value" is unclear and indefinite in the claimed invention. At a minimum, the use of the term "value" at times and "net asset value" other times creates clarity issues due to the use of inconsistent terminology as well as problems with respect to antecedent basis."¹² The instances of value and net asset value are clear. For example, as used in claim 2, the calculation of the NAV of the second fund is used to equate to the value of the creation unit basket for first fund plus or minus the cash amount. There is nothing inconsistent in that usage.

Appellant's comments in the appeal brief does not suggest that "value" would encompass "anything" as argued by the examiner. Rather, "value" as used in the claim is limited to what the value is of, such as in claim 2, the value of the creation unit basket for the first fund.

¹¹ Answer, page 23.

¹² Id., page 24

The examiner argues that: "The independent claims from which claims 2, 8 and 13 depend make no prior reference to the net asset value, creating an antecedent basis problem."¹³ Appellant disagrees. While it is customary to introduce new items using the indefinite article "a" there exists exceptions to this normal usage. One such exception is where "Inherent components of elements recited have antecedent basis in the recitation of the components themselves."¹⁴ A fund of any sort has but one net asset value at the close of trading on any particular day. To use the phrase "a" net asset value in the context of claim 2, would add confusion rather than clarity to the claim. The phrase a net asset value gives the incorrect impression that at the time of the calculation in claim 2, that there exists more than one net asset value that can be applied to that calculation.

35 U.S. C. 103

All claim limitations must be accorded patentable weight.

The examiner uses statutory subject matter reasoning to argue that the limitations of the claims are not entitled to patentable weight. It is well settled that all limitations in a claim must be accorded patentable weight. See for instance *In re Lowry*¹⁵ where the Federal Circuit rejected use of such reasoning in deciding whether claims distinguished over the prior art.

Contrary to the examiner's view, the steps performed by the computer require use of particular data. That data is manifest in the recording steps performed by the computer. These recording steps are substantive steps and not mere post solution activity. Rather, the steps are fundamental to the claimed, non-obvious method. The data includes the existence of exchange of a creation unit basket of securities for a prescribed number of shares in the first fund and recording by the computer of delivery by either the agent or the market participant [of] a number of shares in the second fund or in other securities to account for a cash amount owed.

The data recorded by the computer is the result of a calculation of an amount of cash and a translation of that amount into a number of shares in other securities. However, all of these calculations need not be performed by the machine that produces the shares. So again, the

¹³ Answer, page 24.

¹⁴ MPEP 2173.05(e)

¹⁵ *In re Lowry*, 32 F.3d 1579, 32 U.S.P.Q.2d 1031 (Fed. Cir. 1994).

examiner seeks to improperly limit the claims without the use of prior art. Contrary to the examiner's contention that: "The data recorded by the computer is nothing more than nonfunctional descriptive material.", the data is in fact functional, because the recorded data are tied to the substrate of the claimed method, namely producing the shares in the financial product.

The examiner argues that: "The actual "exchange" and "delivery" relies entirely on decisions and actions by people (i.e., the market participant and agent) and the claim is recited in a way that does not make the actions of these people required (e.g., intended use/result language, passive language)."¹⁶ Appellant's claims do not claim the decisions and actions of people, but rather computer implemented steps resulting from those actions.

Moreover, again using statutory subject matter reasoning rather than reasoning based on the prior art, the examiner seeks to have the claims cover electromagnetic carrier signals.¹⁷ The claims, as written, do not read on "an electromagnetic carrier signal." Moreover, the specification neither describes nor enables "recording by the computer on an electromagnetic carrier signal." The claims however, are enabling for what is actually claimed, recording by the computer in, e.g., memory or disk of the described computer.

Claim 1

Claim 1 requires "recording by the computer, exchange ... of a creation unit basket of securities for a first fund for a prescribed number of shares in the first fund, the shares in the first fund trading in a first country, and the creation unit basket of securities having a creation unit basis that is substantially the same as a creation unit basis for a second fund that is traded on a second marketplace in a second, different country."

Although Gastineau describes S&P 500 Depository Receipts (SPDRs) and indeed "creation units," what is utterly missing from Gastineau, and Gastineau in combination with Strauss, is that the shares in the first fund trade in a first country and have a creation unit basis that is substantially the same as the creation unit basis for a second fund that is traded on a second marketplace in a second, different country. The examiner fails to address this critical feature of claim 1. That is, Gastineau describes S&P 500 Depository Receipts traded in New

¹⁶ Answer, page 25.

¹⁷ Id., page 26.

York based on an index that is listed in New York. That is, Gastineau merely describes the second fund in claim 1, but neither describes nor suggests whether alone or in combination with Strauss the first fund. That is, Gastineau does not describe two different funds that have the same creation unit based, but which are traded in different countries.

The examiner admits that Gastineau fails to suggest: "recording by the computer, delivery ... [of] a number of shares in the second fund or in other securities to account for a cash amount owed ... as a result of the exchange" The examiner relies on Strauss for this feature.

The examiner argues that: "Strauss introduces the idea of an in-kind exchange."¹⁸ The examiner has not cited any portion of Strauss that suggests "an in-kind exchange" nor has the examiner explained how an in-kind exchange relates to the claimed subject matter. The examiner merely discusses Strauss's teaching of "creation units," which is merely duplicative of Gastineau.

The examiner however has shifted reasoning used in the rejections of these claims.¹⁹ The examiner now argues that: "... Strauss further describes that there may be a requirement to also provide a plus or minus balancing amount. (Strauss, pgs. 2-3). As noted supra, recording ... and recording "delivery by either the agent or the market participant a number of shares in the second fund or in other securities to account for a cash amount owed ... have been interpreted as nonfunctional descriptive material and not further limiting of the invention claimed."²⁰ It is evident that examiner agrees with Appellant's arguments that Strauss does not suggest the claimed limitation. Instead, the examiner ignores the claimed limitations, by improperly classifying the limitation as nonfunctional descriptive material that the examiner need not give patentable weight to.

Clearly, the steps are functionally related to the substrate of the claim, namely the method. The feature "recording by the computer, delivery ... a number of shares in the second fund or in other securities ..." is directed to subject matter for which the examiner must give full patentable weight. See *In re Lowry*. Therefore, the examiner must consider all claim limitations.

It is a fair inference that the examiner concedes that the features are not taught in the combination of references at least because the examiner fails to respond to Appellant's

¹⁸ Answer, page 27

¹⁹ Compare reasoning on pages 25 and 27 to reasoning on page 11 of the Examiner's Answer.

²⁰ Answer, page 27

substantive arguments made in the Appeal Brief. Instead the examiner relies on a dubious principle of ignoring claim limitations.

Claims 7 and 12²¹

The examiner argues: "First, applicant's preamble has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152,88 USPQ 478,481 (CCPA 1951).²²

Appellant contends that with respect to claim 7, the preamble must be considered as part of the substrate of the invention to which the instructions are tied. Claim 7 is a so called Beauregard claim. The Office agreed *In re Beauregard*, that computer programs embodied in a tangible medium were patentable subject matter²³ and promulgated rules consistent therewith.²⁴ Accordingly, the preamble is proper and defines the substrate of the invention, namely "a computer readable medium." It embodies the computer program product that comprising instructions for causing a processor to perform the recited task that is neither described nor suggested by the combination of Gastineau/Strauss, as the appears to admit. Instead, the examiner improperly chooses to ignore the claim limitation, which for the reasons given above, is improper.

Claim 12 directed to a computer system for administrating a first fund is allowable for analogous reasons, in that the novel feature is not suggested by the combination and the examiner has improperly ignored the feature.

Claims 16 and 19

Claim 16 is directed to "A computer program product residing on a computer readable medium, for administrating a first exchange-traded fund." Claim 16 includes instructions to

²¹ Appellant had argued these claims with claim 1. However, Appellant argues claim 7 separately because of examiner's separate treatment of the preambles and improper introduction of statutory subject matter reasoning.

²² Answer, page 27

²³ *In re Beauregard*, 53 F.3d 1583, 35 U.S.P.Q.2d 1383 (Fed. Cir. 1995).

²⁴ OG Notices: 22 November 2005 Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility

“record creation of the first exchange-traded fund, ... determine a number of shares in the second exchange-traded fund or in other securities to satisfy an amount of cash that is owed ... and record the prescribed number of shares ... to account for the cash. Claim 19 is an analogous method claim, using a computer to perform the recited actions.

The limitations are not “just storing data.” Rather, the steps performed by the computer require the use of specific data as discussed *supra* and that data recorded by the computer are used by the computer to administer the first fund. As with claims 1 and 7, the computer instructions and the computer implemented steps must be accorded patentable weight.

Claims 2, 4, 8, 10, 13 and 14

These dependent claims, similar to the independent claims from which they depend, neither recite “intended use/intended result language, passive language etc,” nor are obvious in view of Gastineau/Strauss, for reasons of record.

For instance, claim 2 recites: “calculating by the computer system the amount of cash” Claim 2 further limits claim 1 and requires the actual calculation of the cash amount, which is a determination made by a computer and when read in light of claim 1 serves to further distinguish over the cited art. The limitations of claim 2 are, as with independent claim 1, entitled to patentable weight because the limitations are steps performed by a computer operating on data and are functionally tied to the substrate of the invention defined in the claim.

The examiner's observation that: “Strauss describes how cash may be used to ensure that shares are purchased at NAV. (Strauss, pgs. 2-3),”²⁵ does not address the claim feature which due to its dependence from claim 1, requires that the cash that is calculated is an input into the step of recording by the computer (claim 1) of the number of shares in the second fund or in other securities to account for the calculated cash amount owed.

Claims 3 and 9

The examiner again improperly ignores claim limitations failing to take into consideration that this wherein clause further defines what occurs if the cash amount calculated

²⁵ Answer, page 36

is negative or positive. As recited in claim 3, for instance the if clause occurs and properly limits the scope of the claim.

Claims 17, 18 and 20

The claims are patentable over Gastineau in view of Strauss for reasons analogous to those given *supra* because the examiner must consider all claim limitations and apparently concedes that the features are not taught in the combination of references.

Claims 5, 6, 11 and 15

The claims are patentable over Gastineau in view of Strauss for reasons analogous to those given *supra* because the examiner must consider all claim limitations and apparently concedes that the features are not taught in the combination of references.

KSR

The remainder of the examiner's answer that appears under this heading appears to be a re-hash of the examiner's response to arguments in the action appealed from, which was addressed by Appellant in the Appeal Brief.

For these reasons, and the reasons stated in the Appeal Brief, Applicant submits that the final rejection should be reversed.

This Reply Brief is accompanied by a Request for Oral Hearing.

Respectfully submitted,

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